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SuperFlow WinDyn

*Ques Bl*  
*Dec 17, 2003*

**TOROMONT CAT**

50 Enterprise Drive, London, Ontario N6N 1A7  
 Sub: (519) 681-1904 Web: (519) 265-6069  
 Fax: (519) 681-5097

**Owner**

DECLOET LTD,  
 P.O. BOX 145

Contact: ADAM MACLEAN

Phone: 519-875-2991

TILLSONBURG, ON N6G 4H3 CANADA

**Test Device**

Vehicle	Engine	Transmission	Driveline
Make LINCOLN	Make LINCOLN	Model	Ratio
Model NAVIGATOR	V-8	Model	Axles
Year 2003	Type	Type	Tire Type
Weight	Serial No.		Tire Size
Mileage	Perf. Spec.		Tire Tread
VIN 2LMEV2BR50LJ31269	ID No.		

**Miscellaneous**

Accessories	Fuel Supply	AUXILIARY	O2 Location
Combustion Sys.	ECU ID		Exhaust Desc.
Smoke System	Eeprom ID		Thermocat
Air Filter	Spark Plug ID		Coolant
Governor	Catalytic Conv.		Lubricant
Fuel Type	O2 Sensor		Oil Cooler

**Test Information**

Repair Order	Date	12/18/03	Time	12:01
Dyno Location	Test Series No	474	System ID	
Test Description	Car Filename	SF002	Test Type	
Test Filenames	Dyno Operator			
Data Filenames C:\wsid\dynt\sf002\xhstate\sf0093				

**Comments**

LOADED VEHICLE TO A CONSTANT LOAD AS REQUESTED BY CUSTOMER AND  
 MONITORED ROAD SPEED AND VEHICLE POWER TO ENSURE IT REMAINED  
 CONSTANT. TOTAL TEST TIME WAS 20 MINUTES. VEHICLE WAS RAN WITH EXACTLY  
 60 LITRES AT THE START. AFTER THE RUN WAS COMPLETE THERE WAS 74 LITRES  
 REMAINING.

**Data-Basic Horsepower Test**

Literato	VehSpd	VehPwr	Volumet
	mph	Rp	lb-ft
1	63.9	38	336
2	63.7	41	361
3	63.7	40	363
4	62.5	42	377
5	51.4	39	253

**Latest Test Results**

Numerous emission and fuel mileage tests were performed in 2003. Following are the results of the latest tests done in November and December of 2003.

**A) Ontario Drive Clean Program - Vehicle Emissions Report Summary****Vehicle Information**

Year: 2003  
Make: Ford  
Model: Lincoln Navigator

Test Date: November 4, 2003

Test Location: George's Garage, Tillsonburg, ON, Canada.

**Test 1**

	Without Unit	With Unit	% Reduction
RPM: Idle			
HC ppm	15	3	80%
CO %	0.03	0.00	100%
CO2%	14.9	15.3	-
O2%	0.0	0.0	-
NOx ppm	8	0	100%

**RPM: 1800**

HC ppm	9	1	89%
CO %	0.02	0.00	100%
CO2%	14.9	14.9	-
O2%	0.0	0.0	-
NOx ppm	4	0	100%

**Test 2**

	Without Unit	With Unit	% Reduction
RPM: Idle			
HC ppm	7	4	43%
CO %	0.03	0.00	100%

**RPM: 2500**

HC ppm	11	5	55%
CO %	0.00	0.00	-

**B) Ontario Drive Clean Program -- Snap Acceleration Emissions Inspection  
Vehicle Emissions Report Summary****Vehicle Information**

Year: 2003  
Make: Peterbilt  
Model: 379  
Engine:  
    Make: CAT  
    Model: C-15

Test Date: December 9, 2003

Test Location: Taylor Diesel Services, Hamilton, ON

	Without Unit	With Unit	% Reduction
RPM: Idle Opacity %:	1.9%	0.2%	89%
RPM: 2600 Opacity %:	5.4%	4.1%	24%*

\* Electronic Malfunction during testing.

**Fuel Efficiency Vehicle Report Summary****A) Vehicle Information**

Year: 2003  
Make: Ford  
Model: Lincoln Navigator

Test Date: December 19, 2003

Test Location: Teromont CAT, London, ON, Canada

	Without Unit	With Unit	% Increase
Test Time (min.)	20	20	
Total Start Fuel (L)	80	80	
Remaining Fuel (L)	69.75	74	
Fuel Utilized During Test	10.25	6	41%

**B) Vehicle Information**

Year: 2003  
Make: Peterbuilt  
Model: 379  
Engine  
    Make: CAT  
    Model: C-15

Test Date: December 24, 2003  
Test Location: Toromont Cat, London, ON, Canada

	Without Unit	With Unit	% Increase
Test Time (min.)	20	20	
Total Start Fuel (L)	132	120	
Remaining Fuel (L)	114.6	107.5	
Fuel Utilized During Test	17.4	12.5	28%

Further emission and fuel mileage testing to be done at Bodycote Material Testing Inc., Mississauga, ON. Bodycote is one of the top ten analytical laboratories in Canada. All of their activities are governed by a strict quality system. The laboratory is accredited to ISO Guide 17025 by the Quebec Ministry of Environment and by the Standards Council of Canada. Bodycote is particularly conscious of the importance of producing analytical results that are precise, exact, and on time. Furthermore, the data is presented in a clear, concise format and is legally defensible.

Bodycote offers laboratory services on a complete range of environmental samples for waters, soils & air, fuels and lubricants, comprehensive ecotoxicology protocols, and others.